



# UNITED STATES PATENT AND TRADEMARK OFFICE

*lin*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,276	03/01/2002	Paul Simon Ewers	10541-1200 - V200-0978	3090
29074	7590	05/12/2004	EXAMINER	
VISTEON C/O BRINKS HOFER GILSON & LIONE PO BOX 10395 CHICAGO, IL 60610			ZARROLI, MICHAEL C	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/087,276	EWERS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael C. Zarroli	2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 11, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 3-6 and 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3 the examiner does not understand how the pin end is “protected” in the channel during initial assembly. Obviously there is some protection for the pin when in the channel. Is the examiner missing something? The last phrase beginning on the next to last line and beginning with “and protrudes...” seems to be a duplicate of the phrase on lines 3-5. Line four also has awkward grammar with “is moves.”

Claim 6 recites the limitation "when said pin protrudes from the exit." There is insufficient antecedent basis for this limitation in the claim. The examiner will interpret this claim as depending from claim 3.

Claim 12 recites the limitation "the socket." There is insufficient antecedent basis for this limitation in the claim. The examiner will interpret this claim as depending from claim 11.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country, in public use, or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Humphrey.

Humphrey discloses a carrier (32) for holding an electric component having a one or more electrical connection pins (54), comprising a frame (12 & 22) for holding the component, a pin guide (32), and a flexible portion (28 & 40) connecting the pin guide to the frame (figure), wherein: a) the pin guide has one or more channels (38) there through for receiving said electrical connection pins, the or each channel extending along a connection axis; b) the frame has a base for mounting the carrier

to a surface that extends transverse to the connection axis; and c) the flexible portion is adapted to flex to allow the pin guide to move parallel to the connection axis when the pin guide is pressed in a direction along the connection axis (col. 2 lines 60-66).

5. Claims 2 and 7 rejected under 35 U.S.C. 102(e) as being clearly anticipated by Komenda et al.

Komenda discloses an electronic assembly (col. 1 lines 9-10), comprising a carrier and an electronic component (e.g. fig. 4A at 400) having one or more connection pins, the electronic component being assembled to the carrier and the carrier comprising a frame (504) for holding the component, a pin guide (500), and a flexible portion (508) connecting the pin guide to the frame (fig. 5A), wherein; a) the pin guide has one or more channels (unnumbered fig. 5B) there through that receive said electrical connection pins, the or each channel extending along a connection axis (fig. 5A); b) the frame has a base for mounting the carrier to a surface that extends transverse to the connection axis (fig. 5B); and c) the flexible portion is adapted to flex to allow the pin guide to move parallel to the connection axis when the pin guide is pressed in a direction along the connection axis (abstract, last three sentences).

Regarding claim 7 Komenda discloses that the flexible portion is resiliently biased to a neutral position, and the end of the pin is fully retained in the channel when the flexible portion is in the neutral position (abstract last sentence).

Regarding claim 9 Komenda discloses that the electronic component is a planar display element with one or more connection pins extending from the element in a direction transverse to the plane of the element (col. 6 lines 45-57).

6. Claim 10 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ikesugi et al.

Ikesugi discloses a circuit board assembly (title), comprising an electronic assembly and a circuit board (220), the electronic assembly being mounted to the circuit board (fig. 2), and the electronic assembly comprising a carrier and an electronic component (204) having one or more connection pins (fig. 1), the electronic component being assembled to the carrier and the carrier comprising a frame (222) for holding the component, a pin guide (225C, fig. 2), and a flexible portion (225E, 225F) connecting the pin guide to the frame (fig. 3), wherein: a) the pin guide has one or more channels therethrough that receive said electrical connection pins (fig. 1), the or each channel extending along a connection axis; b) the frame has a base (202B) for mounting the carrier to a surface that extends transverse to the connection axis (fig.1); c) the flexible portion is adapted to flex to

allow the pin guide to move parallel to the connection axis when the pin guide is pressed in a direction along the connection axis (figures 1 & 3); and d) the or each connection pin is electronically connected to a matching connection on the circuit board.

***Claim Rejections - 35 USC § 103***

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Sakuraoka et al.

Sakuraoka discloses an electronic assembly, comprising a carrier and an electronic component (10) having a pin guide (18 in fig. 1) having one or more connection pins, the electronic component being assembled to the carrier (fig. 1) and the carrier comprising a frame (14) for holding the component, one or more connection pins (34), and a flexible portion (around 38) connecting the pins to the frame (fig. 2), wherein; a) the pin guide has one or more channels (16) there through that receive said electrical connection pins (fig. 3), the or each channel extending along a connection axis (fig. 2); b) the frame has a base for mounting the carrier to a surface that extends transverse to the connection axis (fig. 1); and c) the flexible portion is adapted to flex to allow the pin guide to move parallel to the connection axis when the pin guide is pressed in a direction along the connection axis (col. 6 lines 4-11 & lines 31-36 and col. 7 lines 3-8).

Sakuraoka does not disclose that the pin guides are part of the carrier and therefore the pins are part of the component. Sakuraoka discloses the opposite as outlined above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to reverse the location of the pins and pinguides of the



electronic device of Sakuraoka et al, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167. The motivation could be to increase the functionality of the device and have it be able to handle male or female components depending on the need.

Regarding claim 8 Sakuraoka discloses that the flexible portion of the carrier comprises a pair of arms (38) that extend generally transverse to the connection axis in opposite directions from the frame towards the pin guide.

*Allowable Subject Matter*

10. Claims 11, 13 & 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 3-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: In combination, the channel with an exit from which the pin protrudes. In combination, the socket mounted on the circuit board and having pin

receptacles in which the shape of the pin guide matches the socket to aid alignment of each pin in its corresponding pin receptacle.

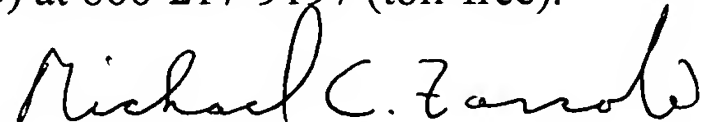
### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zaguskin teaches a pin guide that flexes but cannot be used as prior art because of the applicant's priority date. Neumann et al and Hayashi teach flexible portions with pin guides.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Feild can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Zarroli  
Primary Examiner  
Art Unit 2839

MCZ  
MCZ